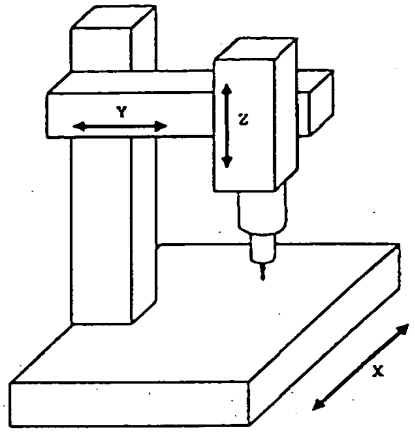
FIG. 1A

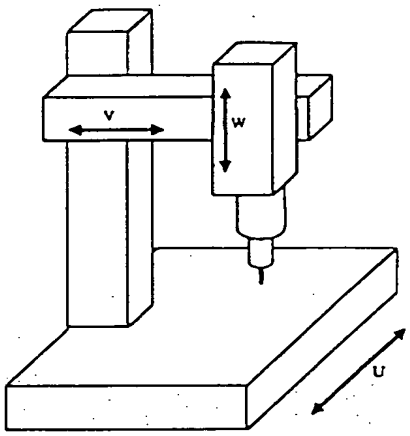
MACHINE A



CONTROLLED AXIS NUMBER	AXIS ADDRESS
1	X
2	Y
3	Z

FIG. 1B

MACHINE B



CONTROLLED AXIS NUMBER	AXIS ADDRESS
1	U
2	V
3	W

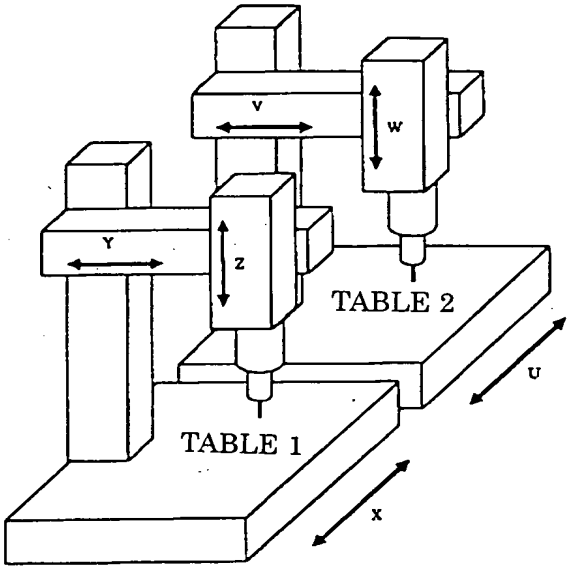
FIG. 2A

```
O0010 (MACHIN-A);
N001 G92 X0 Y0 Z0;
N002 G90 G00 Z250.0 T11 M06;
N003 G43 Z0 H11;
N004 S30 M03;
N005 G99 G81 X400.0 Y-350.0 Z-153.0 R-97.0 F120;
N006 Y-550.0;
N007 G98 Y-750.0;
N008 G99 X1200.0;
N009 Y-550.0;
      :
      :
```

FIG. 2B

```
O0020 (MACHIN-B);
N001 G92 U0 V0 W0;
N002 G90 G00 W250.0 T11 M06;
N003 G43 W0 H11;
N004 S30 M03;
N005 G99 G81 U400.0 V-350.0 W-153.0 R-97.0 F120;
N006 V-550.0;
N007 G98 V-750.0;
N008 G99 U1200.0;
N009 V-550.0;
      :
      :
```

FIG. 3



CONTROLLED AXIS NUMBER	AXIS ADDRESS
1	X
2	Y
3	Z
4	U
5	V
6	W

FIG. 4A

```
O0030 (TABLE1);
N001 G92 X0 Y0 Z0;
N002 G90 G00 Z250.0 T11 M06;
N003 G43 Z0 H11;
N004 S30 M03;
N005 G99 G81 X400.0 Y-350.0 Z-153.0 R-97.0 F120;
N006 Y-550.0;
N007 G98 Y-750.0;
N008 G99 X1200.0;
N009 Y-550.0;
      :
      :
```

FIG. 4B

```
O0040(TABLE2);
N001 G92 U0 V0 W0;
N002 G90 G00 W250.0 T11 M06;
N003 G43 W0 H11;
N004 S30 M03;
N005 G99 G81 U400.0 V-350.0 W-153.0 R-97.0 F120;
N006 V-550.0;
N007 G98 V-750.0;
N008 G99 U1200.0;
N009 V-550.0;
      :
      :
```

FIG. 5

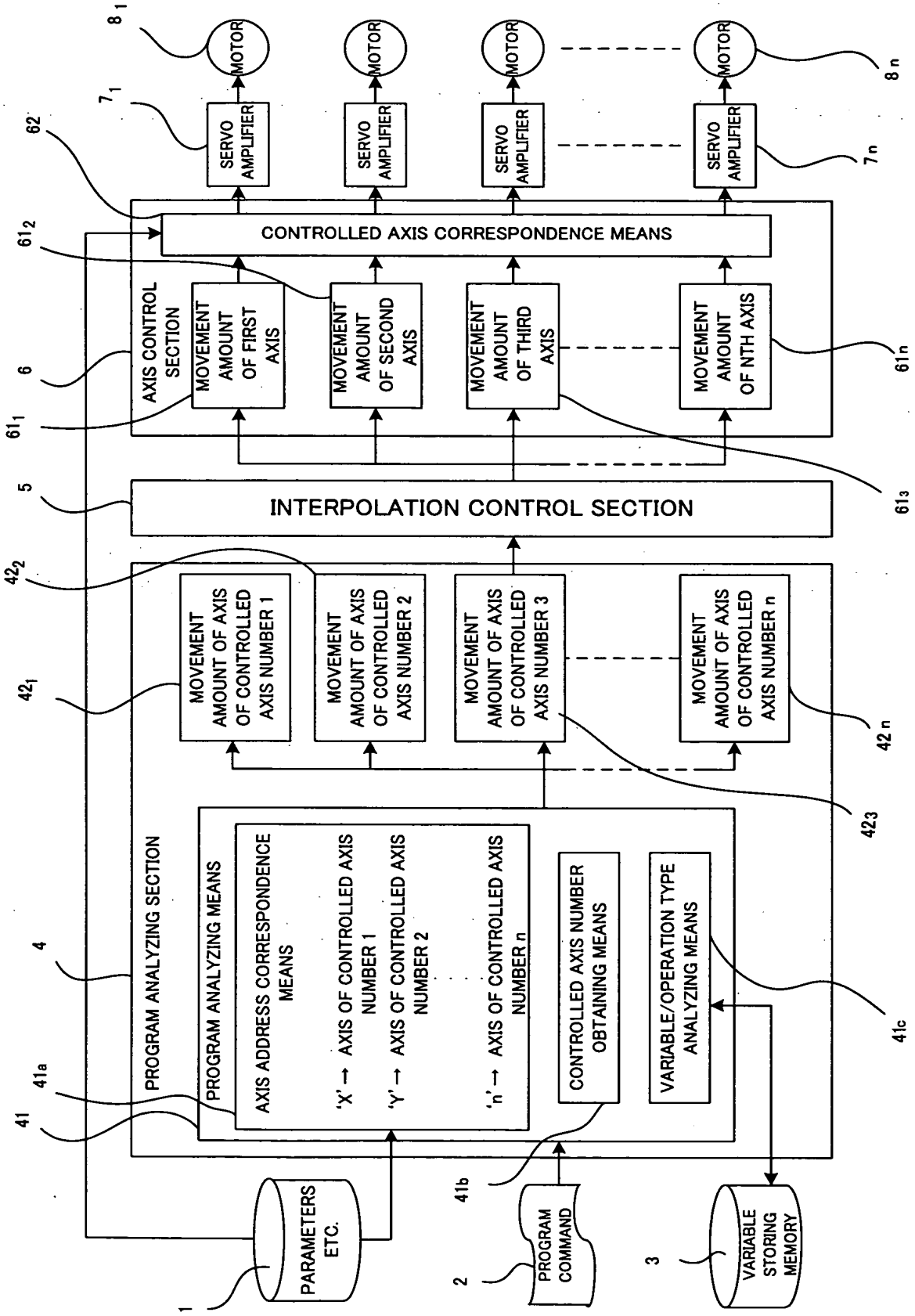

MOTOR
SERVO AMPLIFIER
CONTROLLED AXIS CORRESPONDENCE MEANS
AXIS CONTROL SECTION
MOVEMENT AMOUNT OF FIRST AXIS
MOVEMENT AMOUNT OF SECOND AXIS
MOVEMENT AMOUNT OF THIRD AXIS
MOVEMENT AMOUNT OF NTH AXIS
INTERPOLATION CONTROL SECTION
MOVEMENT AMOUNT OF AXIS OF CONTROLLED AXIS NUMBER 1
MOVEMENT AMOUNT OF AXIS OF CONTROLLED AXIS NUMBER 2
MOVEMENT AMOUNT OF AXIS OF CONTROLLED AXIS NUMBER 3
MOVEMENT AMOUNT OF AXIS OF CONTROLLED AXIS NUMBER n
PROGRAM ANALYZING SECTION
PROGRAM ANALYZING MEANS
AXIS ADDRESS CORRESPONDENCE MEANS
'X' → AXIS OF CONTROLLED AXIS NUMBER 1
'Y' → AXIS OF CONTROLLED AXIS NUMBER 2
'n' → AXIS OF CONTROLLED AXIS NUMBER n
CONTROLLED AXIS NUMBER OBTAINING MEANS
VARIABLE/OPERATION TYPE ANALYZING MEANS
PARAMETERS ETC.
PROGRAM COMMAND
VARIABLE STORING MEMORY

FIG. 6

```
O0060(MACHIN-A&B);
N001 G92 AX[1]=0 AX[2]=0 AX[3]=0;
N002 G90 G00 AX[3]=250.0 T11 M06;
N003 G43 AX[3]=0 H11;
N004 S30 M03;
N005 G99 G81 AX[1]=400.0 AX[2]=-350.0 AX[3]=-153.0 R-97.0 F120;
N006 AX[2]=-550.0;
N007 G98 AX[2]=-750.0;
N008 G99 AX[1]=1200.0;
N009 AX[2]=-550.0;
        :
        :
```

FIG. 7

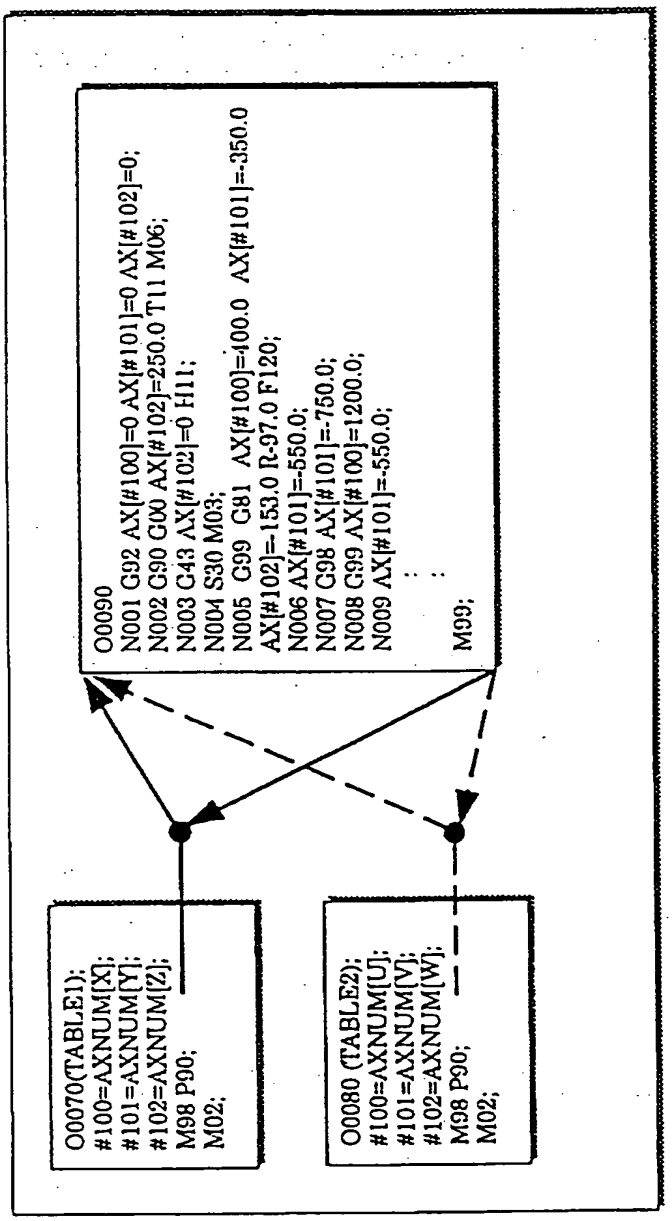

O0090
N001 G92 AX[#100]=0 AY[#101]=0 AX[#102]=0;
N002 G90 G00 AX[#102]=250.0 T11 M06;
N003 G43 AX[#102]=0 H11;
N004 S30 M03;
N005 G99 G81 AX[#100]=-100.0 AX[#101]=-350.0
AX[#102]=-153.0 R-97.0 F120;
N006 AX[#101]=-550.0;
N007 G98 AX[#101]=-750.0;
N008 G99 AX[#100]=1200.0;
N009 AX[#101]=-550.0;
M99;
O0070(TABLE1);
#100=AXNUM[X];
#101=AXNUM[Y];
#102=AXNUM[Z];
M98 P90;
M02;
O0080 (TABLE2);
#100=AXNUM[U];
#101=AXNUM[V];
#102=AXNUM[W];
M98 P90;
M02;

FIG. 8

```
O0050 (REPEAT AXIS);
N001 G92 X0 Y0 Z0 U0 V0 W0 A0 B0 C0;
N002 G90 G01 F1000;
N003 X100.0;
N004 Y100.0;
N005 Z100.0;
N006 U100.0;
N007 V100.0;
N008 W100.0;
N009 A100.0;
N010 B100.0;
N011 C100.0;
N012 G00 X0 Y0 Z0 U0 V0 W0 A0 B0 C0;
        :
        :
```

FIG. 9

```
O0100 (REPEAT AXIS);
N001 G92 X0 Y0 Z0 U0 V0 W0 A0 B0 C0;
N002 G90 G01 F1000;
N003 #100=AXNUM[X];
N004 #101=AXNUM[C];
N005 #102=0;
N006 WHILE[ #102 LT #101 ] DO 1;
N007 AX[#100+#102] = 100.0;
N008 #102=#102+1;
N009 END 1;
N010 G00 X0 Y0 Z0 U0 V0 W0 A0 B0 C0;
        :
        :
```

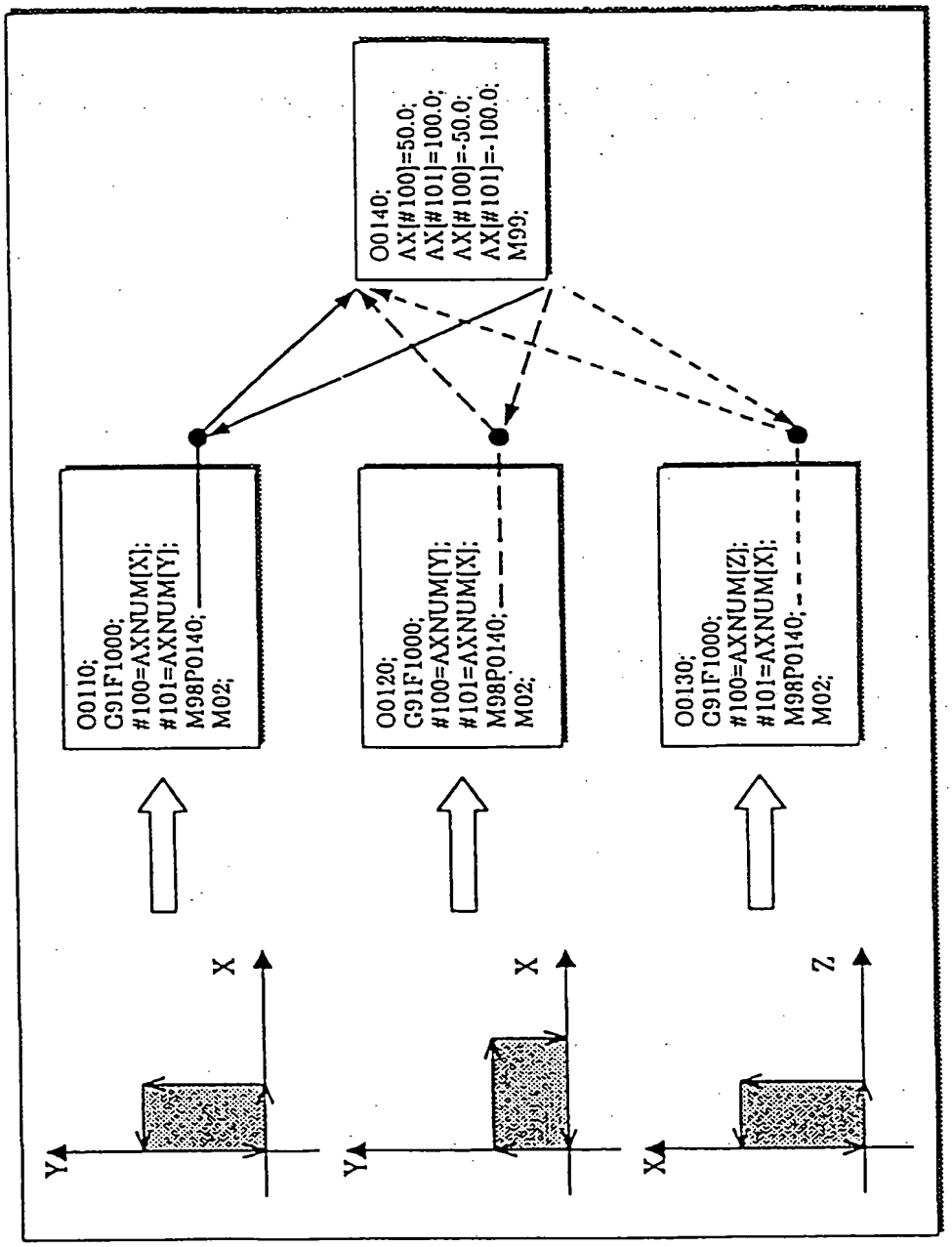
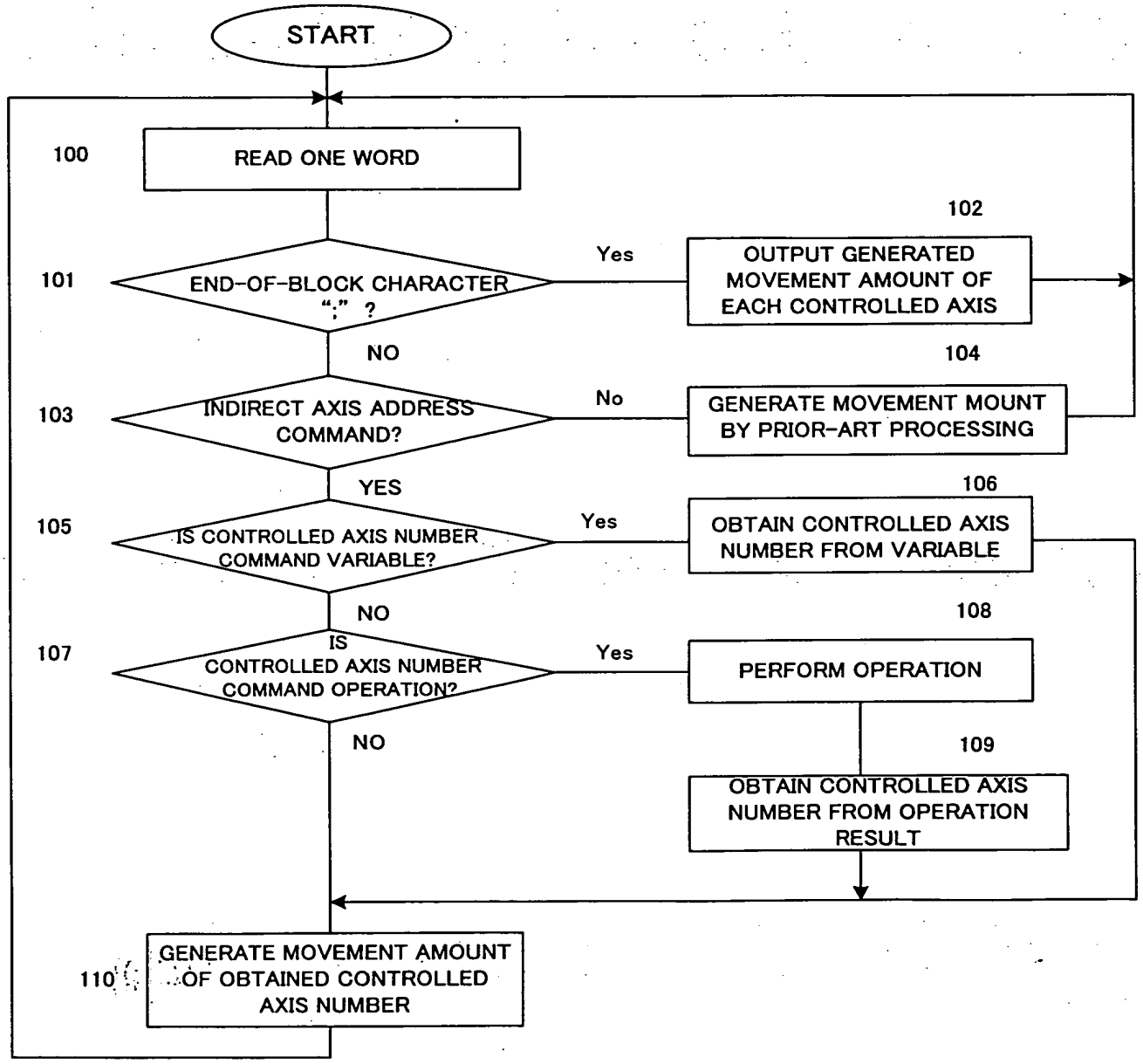


FIG. 10A

FIG. 10B

FIG. 10C

FIG. 11


START
100
READ ONE WORD
101
END-OF-BLOCK CHARACTER ":" ?
Yes
102
OUTPUT GENERATED MOVEMENT AMOUNT OF EACH CONTROLLED AXIS
NO
103
INDIRECT AXIS ADDRESS COMMAND?
No
104
GENERATE MOVEMENT MOUNT BY PRIOR-ART PROCESSING
YES
105
IS CONTROLLED AXIS NUMBER COMMAND VARIABLE?
Yes
106
OBTAIN CONTROLLED AXIS NUMBER FROM VARIABLE
NO
107
IS CONTROLLED AXIS NUMBER COMMAND OPERATION?
Yes
108
PERFORM OPERATION
NO
109
OBTAIN CONTROLLED AXIS NUMBER FROM OPERATION RESULT
110
GENERATE MOVEMENT AMOUNT OF OBTAINED CONTROLLED AXIS NUMBER